

Claims

1. Process for obtaining a furan lipid-rich unsaponifiable material from avocado, characterized in
5 that it comprises the following successive steps:

- 10 (1) a step of controlled dehydration of fresh avocados or of avocados that have undergone preliminary transformations, performed at a temperature of between -50°C and 75°C ,
- (2) a step of extraction of the oil from dehydrated fruit,
- (3) a step, alternatively,
 - 15 - a. of heat treatment of the extracted oil at a temperature that can range from 80 to 150°C , and then a step of concentration of the unsaponifiable fraction of the oil, or
 - b. of a step of concentration of the unsaponifiable fraction of the oil, followed by a
20 heat treatment at a temperature that can range from 80 to 150°C , followed by
- (4) a step of saponification and extraction of the unsaponifiable material.

25 2. Process for obtaining a furan lipid-rich unsaponifiable material from avocado according to Claim 1, characterized in that the heat treatment during step (3) a. or (3) b. is carried out in the presence of a catalyst.

30 3. Process for obtaining a furan lipid-rich unsaponifiable material from avocado according to Claim

2, characterized in that the catalyst is an acid catalyst of homogeneous mineral or organic catalyst type, chosen from the group of hydrochloric acid, sulphuric acid, acetic acid and para-toluenesulphonic acid, or a
5 heterogeneous solid catalyst chosen from the group consisting of silica, alumina, silica-aluminas, zirconias, zeolites and acidic resins.

4. Process for obtaining a furan lipid-rich
10 unsaponifiable material from avocado according to Claim 3, characterized in that the catalyst is of acidic alumina type, with a specific surface area at least equal to 200 m²/g.

15 5. Process for obtaining a furan lipid-rich unsaponifiable material from avocado according to any one of Claims 1 to 4, characterized in that the dehydration in step (1) is chosen from the group consisting of drying under a stream of hot air or under a controlled
20 atmosphere, drying at atmospheric pressure or under vacuum, in a thick layer or in a thin layer, microwave drying, spray-drying, freeze-drying and osmotic dehydration in solution or in solid phase.

25 6. Process for obtaining a furan lipid-rich unsaponifiable material from avocado according to Claim 5, characterized in that the dehydration in step (1) consists in drying in ventilated dryers, in a thin layer and under a stream of hot air, at a temperature of
30 between 70 and 75°C for 8 to 36 hours.

7. Process for obtaining a furan lipid-rich unsaponifiable material from avocado according to any one of Claims 1 to 6, characterized in that the extraction in step (2) is carried out by a simple cold pressing or by
5 means of a solvent at low temperature.

8. Process for obtaining a furan lipid-rich unsaponifiable material from avocado according to any one of Claims 1 to 7, characterized in that the concentration
10 step in step (3)a. or (3)b. is a cold crystallization or a molecular distillation.

9. Process for obtaining an unsaponifiable material from avocado according to Claim 8, characterized in that the
15 concentration step is a molecular distillation which is performed at a temperature of between 180 and 260°C while maintaining a pressure of between 10^{-3} and 10^{-2} mmHg.

10. Process for obtaining a furan lipid-rich
20 unsaponifiable material from avocado according to any one of Claims 1 to 9, characterized in that the molecular distillation is carried out in a device chosen from molecular distillation devices of centrifugal type and molecular devices of wiped-film type.

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11. Process for obtaining a furan lipid-rich unsaponifiable material from avocado according to any one of Claims 1 to 10, characterized in that step (4) of saponification of the oil or of the oily extract is
30 carried out in the presence of potassium hydroxide or sodium hydroxide in alcoholic medium, followed by one or more extraction(s).

12. Process for obtaining a furan lipid-rich unsaponifiable material from avocado according to Claim 11, characterized in that the extraction takes place by
5 liquid-liquid extraction with an organic solvent chosen from the group of alkanes, haloalkanes, aromatic solvents and ethers.

13. Process for obtaining a furan lipid-rich
10 unsaponifiable material from avocado according to Claim 10, characterized in that the organic solvent for the extraction is 1,2-dichloroethane.

14. Process for obtaining a furan lipid-rich
15 unsaponifiable material from avocado according to any one of Claims 1 to 13, characterized in that it is followed by a deodorization step.